

3 5. (Five Times Amended) A method for producing an ultra high molecular weight polyethylene molded block having orientation of crystal planes in a direction parallel to a compression plane, comprising slightly crosslinking an ultra high molecular weight polyethylene molded block having a molecular weight not less than 5 million by irradiating the block with a high energy ray and thereby introducing a very small amount of crosslinking points into molecular chains of the block, then heating the crosslinked ultra high molecular weight polyethylene molded block up to a compression deformable temperature, compression-deforming the block by compressing the block in a direction perpendicular to the compression plane so as to deform the block, and then cooling the block while keeping the block in a deformed state under pressure, said block after cooling having a thickness range of 5 to 10 mm in a direction perpendicular to the compression plane.

7 9. (Five Times Amended) An ultra high molecular weight polyethylene molded block having orientation of crystal planes in a direction parallel to a compression plane, said block produced by slightly crosslinking an ultra high molecular weight polyethylene block having a molecular weight of not less than 5 million by irradiating the block with a high energy ray and thereby introducing a very small amount of crosslinking points into molecular chains of the block, then heating the crosslinked block up to a compression deformable temperature, compression-deforming the block by compressing the block in a direction perpendicular to the compression plane so as to deform the block, and then cooling and solidifying the block while keeping the block in a deformed state under pressure, said block after cooling and solidifying having a thickness range of 5 to 10 mm in a direction perpendicular to the compression plane.

8/10. (Four Times Amended) Artificial joint for implantation in a joint of an animal, the joint comprising a joint component formed from an ultra high molecular weight polyethylene molded block having a molecular weight of not less than 5 million, having been crosslinked slightly and having been compression-deformed in a direction perpendicular to a compression plane, cooled and solidified in a compression-deformed state under pressure so as to have orientation of crystal planes in a direction parallel to the compression plane, said block having a thickness range of 5 to 10 mm in a direction perpendicular to the compression plane.

10/11. (Four Times Amended) Artificial joint for implantation in a joint of an animal, the joint comprising a joint component formed from an ultra high molecular weight polyethylene molded block having a molecular weight of not less than 5 million, having been crosslinked slightly and having been compression-deformed in a direction perpendicular to a compression plane so as to have orientation of crystal planes in a direction parallel to the compression plane, wherein said block having a thickness range of 5 to 10 mm in a direction perpendicular to the compression plane and the melting temperature of the molded block is in a range of 135 to 155°C.

REMARKS

By the present amendment, independent claims 1, 5 and 9-11 have been amended to further clarify the concepts of the present invention by, among other things, modifying the claims to recite that the ultra high molecular weight polyethylene block has "a molecular weight of not less than 5 million" and that the cooling and solidifying of the block is conducted "under pressure." Support for the former amendments may be found, among other places, at page 5,